

WHAT IS CLAIMED IS:

1. An intraluminal medical device comprising:
a substantially tubular member having open ends, and a first
diameter for insertion into a lumen of a vessel and a second diameter for
anchoring in the lumen of the vessel; and
at least one marker connected to at least one end of the
substantially tubular member, the at least one marker comprising a
marker housing and a marker insert having a radius of curvature equal
to the radius of curvature of the substantially tubular marker.
2. The intraluminal medical device according to Claim 1, wherein the
intraluminal medical device comprises a superelastic alloy.
3. The intraluminal medical device according to Claim 2, wherein the
superelastic alloy comprises from about 50.0 percent to about 60
percent Nickel and the remainder Titanium.
4. The intraluminal medical device according to Claim 1, wherein the
marker housing comprises the same material as the intraluminal medical
device and is integral thereto, thereby forming a unitary structure.
5. The intraluminal medical device according to Claim 4, wherein the
marker insert comprises a material having a radiopacity higher than that
of the material comprising the intraluminal medical device.
6. The intraluminal medical device according to Claim 5, wherein the
marker insert comprises Tantalum.
7. The intraluminal medical device according to Claim 6, wherein the
marker insert is secured in the marker housing by frictional, locking
engagement.

8. The intraluminal medical device according to claim 7, wherein the marker insert is secured in the marker housing by a protruding ridge.

9. An intraluminal medical device comprising:

5 a thin-walled, substantially tubular member having open ends, and a first diameter for insertion into a lumen of a vessel and a second diameter for anchoring in the lumen of the vessel, the thin-walled tubular member comprising a superelastic alloy; and

10 at least one marker connected to at least one end of the thin-walled, substantially tubular member, the at least one marker comprising a marker housing and a marker insert having a radius of curvature equal to the radius of curvature of the substantially tubular marker.

15 10. The intraluminal medical device according to Claim 9, wherein the marker housing comprises the same material as the intraluminal medical device and is integral thereto, thereby forming a unitary structure.

20 11. The intraluminal medical device according to Claim 10, wherein the marker housing defines a substantially elliptical opening having a predetermined curvature.

25 12. The intraluminal medical device according to Claim 11, wherein the marker insert comprises a material having a radiopacity higher than that of the material comprising the intraluminal medical device.

13. The intraluminal medical device according to Claim 12, wherein the marker insert comprises Tantalum.

30 14. The intraluminal medical device according to Claim 13, wherein the marker insert has a curvature equal to that of the curvature of the opening in the marker housing.

15. The intraluminal medical device according to Claim 14, wherein the marker insert has a diameter of 0.02 inches.

16. The intraluminal medical device according to Claim 15, wherein the marker insert is secured in the marker housing by frictional, locking engagement.

17. The intraluminal medical device according to claim 16, wherein the marker insert is secured in the marker housing by a protruding ridge.

18. A stent comprising:
a thin-walled, substantially tubular member having open ends, and a first diameter for insertion into a lumen of a vessel and a second diameter for anchoring in the lumen of the vessel, the thin-walled tubular member comprising a superelastic alloy; and

at least one marker connected to at least one end of the thin-walled, substantially tubular member, the at least one marker comprising a marker housing and a marker insert having a radius of curvature equal to the radius of curvature of the substantially tubular marker.

19. The stent according to Claim 18, wherein the marker housing comprises the same material as the stent and is integral thereto, thereby forming a unitary structure.

20. The stent according to Claim 19, wherein the marker housing defines a substantially elliptical open having a predetermined curvature.

21. The stent according to Claim 20, wherein the marker insert comprises a material having a radiopacity higher than that of the material comprising the stent.

22. The stent according to Claim 21, wherein the marker insert comprises Tantalum.

23. The stent according to Claim 22, wherein the marker insert has a curvature equal to that of the curvature of the opening in the marker housing.

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24. The stent according to Claim 23, wherein the marker insert has a diameter of 0.02 inches.

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25. The stent according to Claim 24, wherein the marker insert is secured in the marker housing by frictional, locking engagement.

26. The intraluminal medical device according to claim 25, wherein the marker insert is secured in the marker housing by a protruding ridge.

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27. The stent according to Claim 18, further comprising six markers attached to each end of the thin-walled, substantially tubular member.

28. A method of manufacturing an intraluminal medical device having improved radiopacity comprising:

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forming a substantially tubular lattice from a tubular member having first and second ends, a first diameter for insertion into a lumen of a vessel and a second diameter for anchoring in the lumen of the vessel, the substantially tubular lattice being formed from a superelastic alloy;

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forming at least one marker housing from the tubular member that is integral with the substantially tubular lattice, the marker housing defining a substantially elliptical opening and having a predefined radius of curvature;

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forming a marker insert having the same radius of curvature as the substantially elliptical opening; and

seating the marker insert into the substantially elliptical opening.

29. The method of manufacturing an intraluminal medical device according to Claim 28, wherein the substantially elliptical opening has an inside and outside diameter.

5 30. The method of manufacturing an intraluminal medical device according to Claim 29, wherein the step of forming a marker insert comprises punching the marker insert from annealed ribbon stock having a high radiopacity, the marker insert having a diameter between the inside and outside diameter of the substantially elliptical opening.

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31. The method of manufacturing an intraluminal medical device according to Claim 30, wherein the step of seating the marker insert into the substantially elliptical opening comprises:

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loading the punched marker insert into the hole of the marker housing; and

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coining the punched marker insert with a predefined pressure utilizing a coining tool such that the punched marker insert is forced below the surface of the marker housing and the marker housing deforms to form a protruding ridge.